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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT Patent Application Docket No. SPO.129

February 17, 2012

David R. Saliwanchik, Patent Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner

Philip A. Dubois

Art Unit

1781

Applicants

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Serial No.

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Conf. No.

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Filed

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For

Antibacterial Compositions

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

<u>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u> UNDER 37 CFR §§1.97 AND 1.98

Sir:

The above-identified patent application was filed in the U.S. Patent Office as a national application under 35 USC §371.

In accordance with 37 C.F.R. § 1.56, the reference listed on the attached Form PTO/SB/08 is being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. A copy of the cited document is attached.

Please note that the reference JP 2004/051494 (F1) is in a foreign language. However, a concise explanation of the reference has been provided for the Examiner's convenience, copy attached.

The undersigned hereby certifies that the item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

It is respectfully requested that the Examiner indicate consideration of the cited reference by returning a copy of the attached Form PTO/SB/08 with initials or other appropriate marks. If any additional fee is required, or to credit any overpayment, please use Deposit Account No. 19-0065.

The applicants respectfully assert that the substantive provisions of 37 C.F.R. §§ 1.97 and 1.98 are met by the foregoing statement.

Respectfully submitted,

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Attachments: Form PTO/SB/08 (1 page)

Copies of reference cited

Copy of concise explanation of cited reference

Concise Explanation of Japanese Reference

Japanese Patent Application Kokai Publication No. 2004-51494

Publication date: February 19, 2004

5 Title: Enteral nutrients

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This patent document is cited in the prosecution of the corresponding Korean application (Korean Application No. 10-2006-7022476) as disclosing an enteral nutrient containing proteins, fats and carbohydrates at energy ratios of 10-40%, 10-40% and 40-80%, respectively. The Korean Patent Office asserts that the fluid foods contemplated in the corresponding application include such an enteral nutrient, that this document describes a composition comprising a plant-derived oil, such as rapeseed oil, that this document also describes enteral nutrients containing casein sodium, dairy proteins, dextrin, fructose, rapeseed oil and such, and that this document further teaches a process for preparing an enteral nutrient, comprising the steps of dissolving the components of the nutrient in hot water with stirring, and sterilizing the mixture.

The invention of this document provides enteral nutrients which could improve protein metabolism, immune ability, intestinal mucosal functions, and such through administration, for example, to patients receiving surgery or patients with severe infection.

The invention relates to liquid enteral nutrients having an osmotic pressure of 300 to 600 mOsm/kg, an amino acid score of 100, and comprising the following substances as main ingredients:

substance A: nitrogen source substances of 10-40 energy % to the total energy source, and comprising proteins, glutamine-containing peptides, and amino acids;

substance B: lipids of 10-40 energy % to the total energy source;

substance C: carbohydrates of 40-80 energy % to the total energy source;

substance D: an emulsifier; and

substance E: water.

The glutamine-containing peptide added to the enteral nutrient is expected to show an effect of improving protein metabolism, immune ability, intestinal mucosal functions, and such. It is not converted after dissolving in water or heat sterilization into pyroglutamate which does not show these effects.

An osmotic pressure of 300 to 600 mOsm/kg represents an osmotic pressure which imposes little burden to the body, and an amino acid score of 100 is used so that the effect of the glutamine-containing peptide is most effectively exhibited.

The Examples show methods for preparing various enteral nutrients and measuring various parameters (such as protein, glutamine, lipid, and carbohydrate contents; amino acid score; osmotic pressure; pH; and palatability) of the prepared enteral nutrients. However, the antibacterial effects of the enteral nutrients are not discussed with showing experimental results or data.

The enteral nutrients prepared in the Examples are shown in Table 1.

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Table 1

Г		Example 1	Example 2	Example	3Example 4	Example	5Example 6	Comparativ	Comparatiy	Comparatiy
-	Substance A							Example	<u> Example 2</u>	Example 3
Diametric Company	Glutamine-containing peptide	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5
	Casein sodium	3	3	3	3	3	3	4.2	3	3
	Lactoprotein	2	2	2	2	2	2	2	2	2
	L-methionine	0.02	0.02	0.02	0.02	0.02	0.02	 _		0.02
	L-threonine	0.01	0.01	0.01	0.01	0.01	0.01			0.01
Se.	L-tryptophane	0.02	0.02	0.02	0.02	0.02	0.02			0.02
ł	Substance B	 			 					
(weight	Rape seed oil	1.4	1.4	1.4	1.4	1.4	1.04	1.4	1.4	1.92
	Medium chain fatty acid	0.6	0.6	0.6	0.6	0.6	0.6	0.В	0.6	0.6
ä	Fish oil	0.08	0.08	0.08	0.08	0.08	0.08	80.0	0.08	0.08
Sompositi	Substance C	1						4.00	4,00	
dilic	Dextrin with DE11	9	9	9	9	9	9	9	9	9
ဒ	Dextrin with DE25	3	3	3	3	3	1 3	3	3	3
ı	Fructose	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
l	Substance D				 	 			1	1.0
	Succinic acid monoglyceride	0.39	0.33	0.26	0.65		0,6	0.39	0.39	
	Citric acid monoglyceride	0.26	0.33	0.39	0.00	0.65	0.5	0.26	0.26	
	Substance E					0.00			0.20	ļ
	Water				J	Rest		<u> </u>		<u> </u>
	pH adjuster	 			T	Near	1	T	-	1
	Sodium hydroxide	0.07	0.07	0.07	0.07	0.07	0.07	<u> </u>	0.07	0.07
	Other substances	Shown in Table 2								
	Total	100 100 100 100 100 100 100 100 100								
H	Protein content (g/100ml)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	100
	Glutamine content (g/100ml)	0.75	0.75	0.75	0.75	0.75	0.75	0,2	0.75	
	Amino acid score	100	100	100	100	100	100	100	70	
11	Lipid content (g/100ml)	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
1	Total calories (kcal/100ml)	100	100	100	100	100	100	100	100	
	Carbohydrate content (g/100ml)	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	
	Osmotic pressure (mOsm/kg)	480	472	479	499	493	461	472	476	
ţs	Viscosity (cp)	10	10	10	10	10	7	9	9	
Results	Average particle diameter (µm)	0.18	0.21	0.20	0.28	0.26	0.18	0.19	0.19	-
Re	На	6.7	6.7	6.7	6.7	6.7	6.1	8.7	6.7	
	State of liquid	6	0	<u> </u>	6	<u> </u>	©	(3)	©	×
	Palatability	0	0	<u> </u>	0	0	Δ	0	0	- -
	Preservation test; osmotic pressure (mOsm/kg)	488	493	495	512	507	Δ.	480	483	^
	OSMOTIC pressure (mUsm/kg) Preservation test; viscosity (cp)	10	12	12	18	14		10	10	
	Preservation test.	0.18	0.24	0.26	0.77	0.58		0.19	0.19	
	<u>average particle diameter (um)</u> Preservation test; pH	8.5	6.5	6.5	6.5	6.5		6.5		
	Preservation test: state of liquid	(0.5) (D)	0.5	O)			×		6.5	
	state of liquid Preservation test; palatability	0	-0		Δ	<u> </u>		0	0	
	palacability	(<u>U</u>		0	Δ	Δ	×	0	<u> </u>	